

1 What is claimed is:

2 1. A method for designing a device or system capable of:

3 implementing a hash algorithm which can generate the hash of an input message block using only  
4 non-sequential structures and logic elements which perform the plurality of the intermediate stage  
5 computations and logical operations of a hash algorithm without the use of a clock;

6 2. A device or system using the methodology of claim 1 capable of;

7 generating the full hash of an N-block long message in no more than N-process (clocks) cycles.

8 3. A device or system using the methodology of claim 1 wherein;

9 the total propagation delay through a critical delay path specifies the speed of a system or device.

10 4. An apparatus built using the methodology of claim 1 wherein:

11 a system or device manifested in an implementing technology is the physical expression of the  
12 design methodology of such a system or device.

13 5. An apparatus as claimed in claim 4;

14 can be built to implement any hash algorithm.